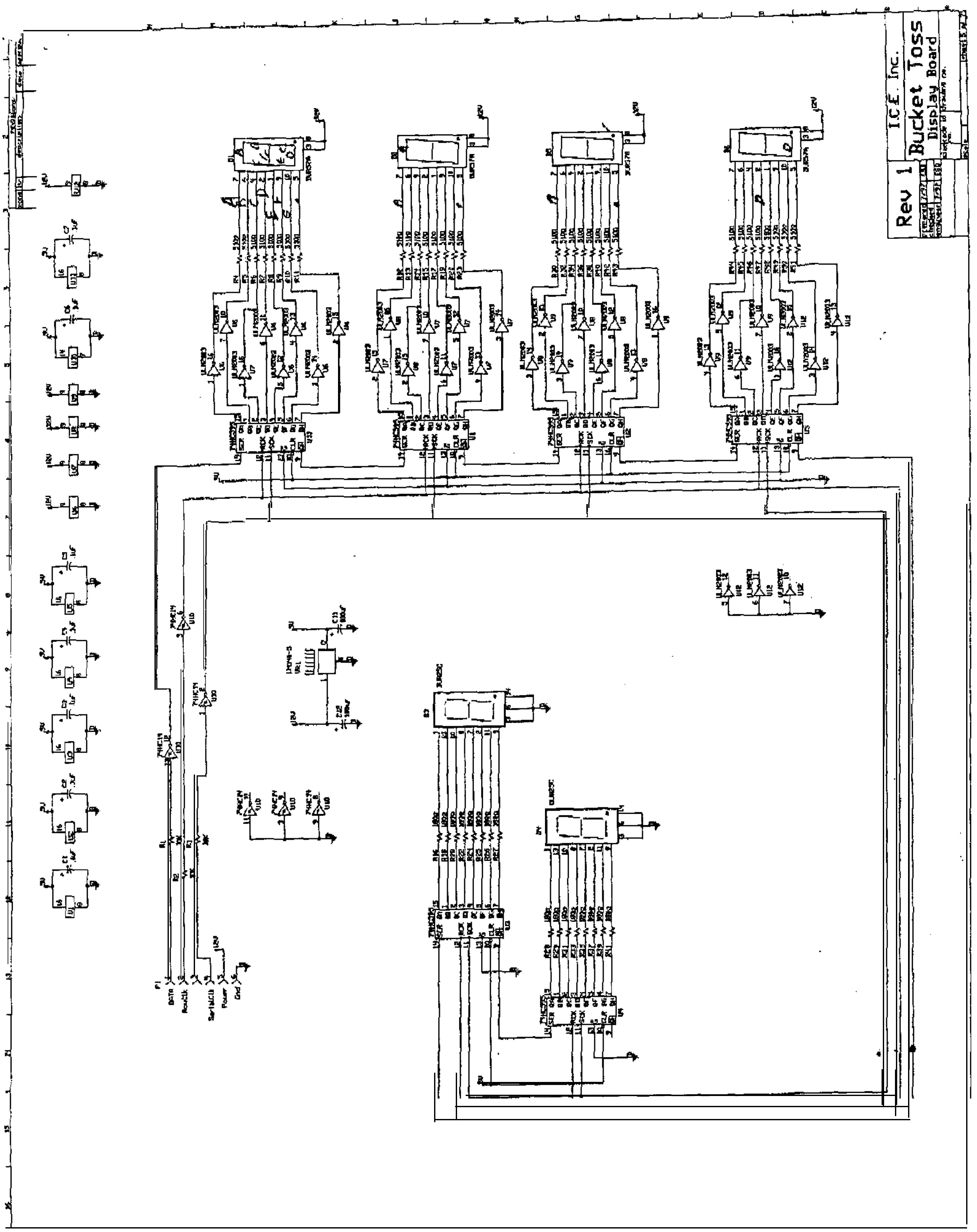
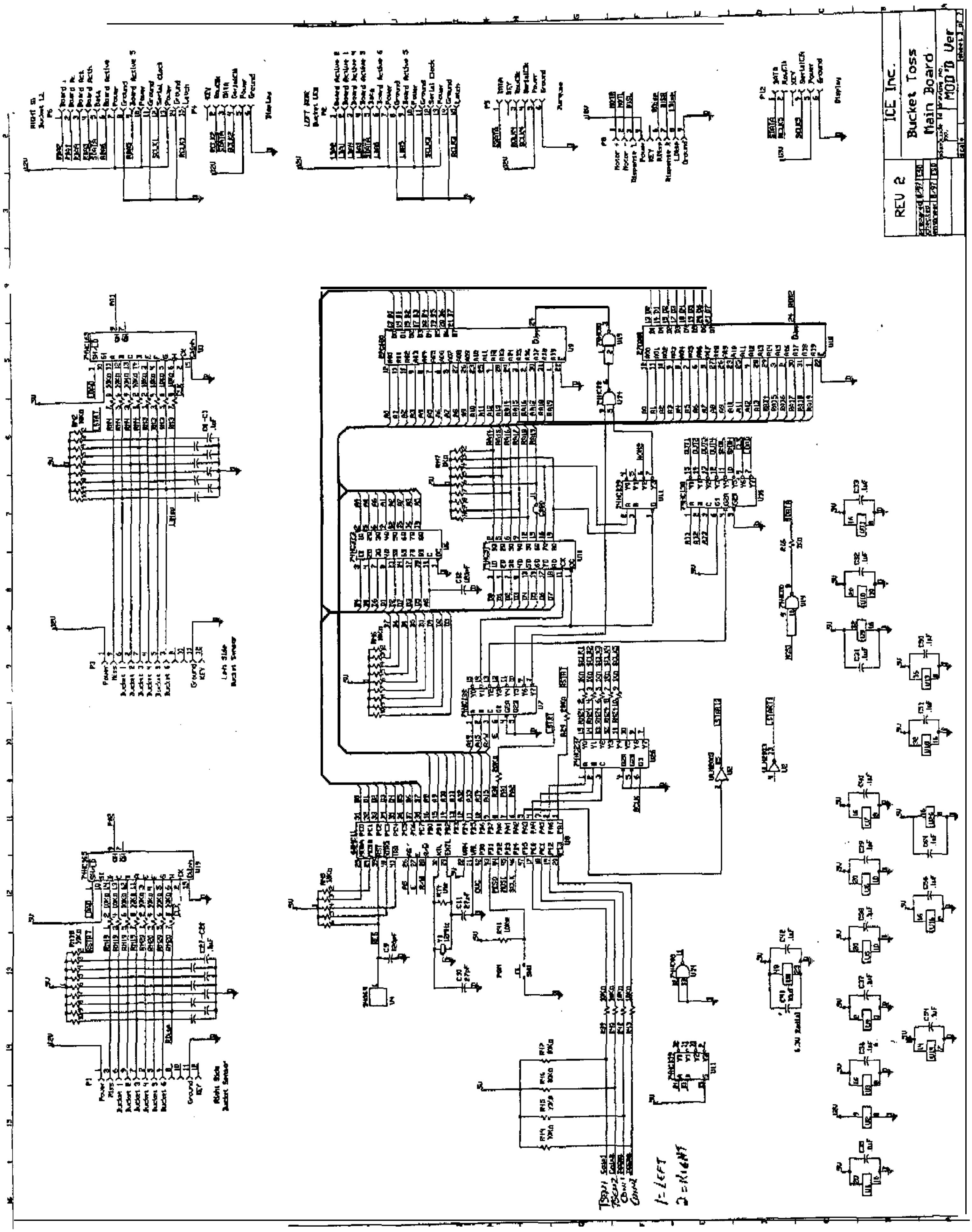
BOZO™ II

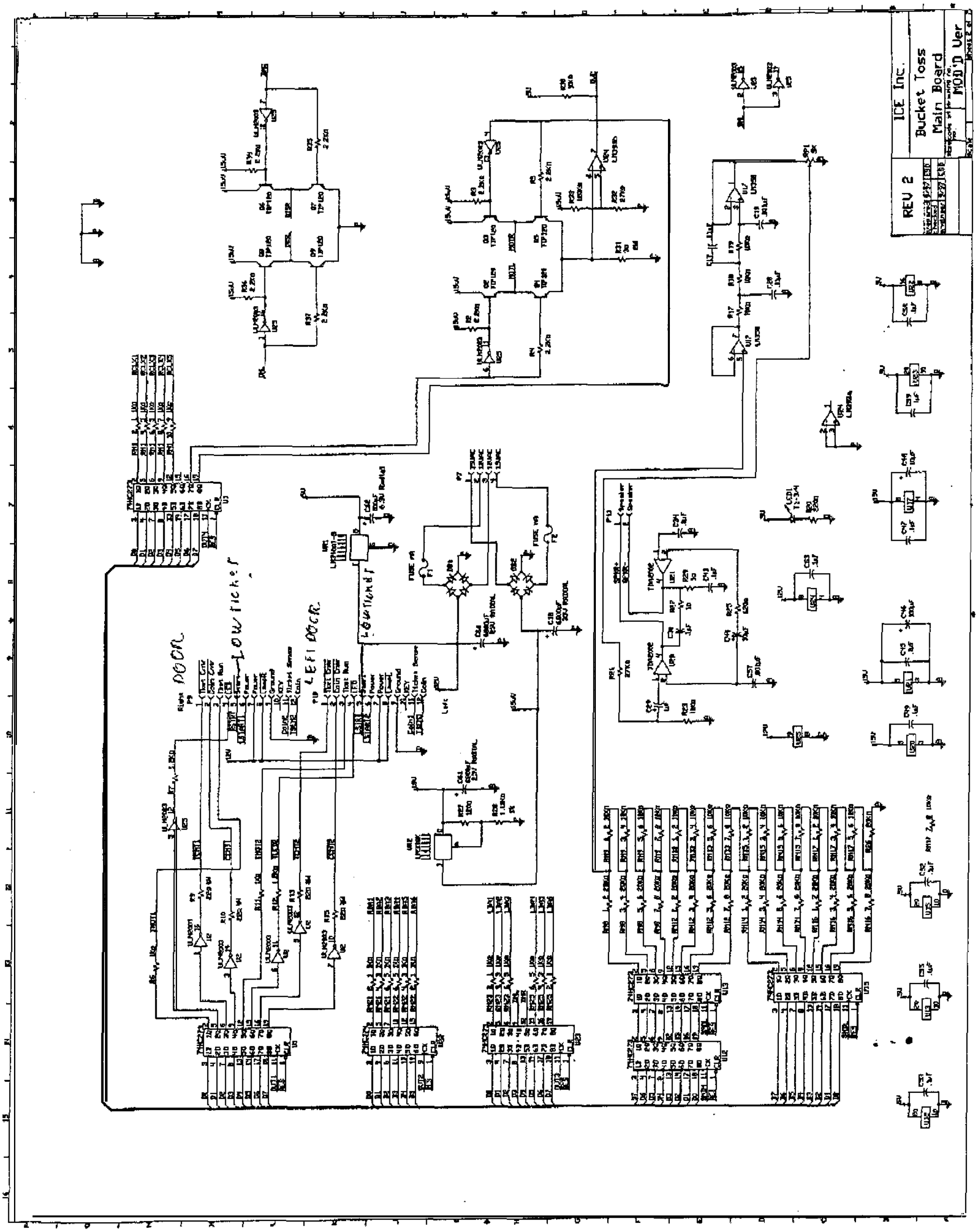
OWNERS AND SERVICE MANUAL

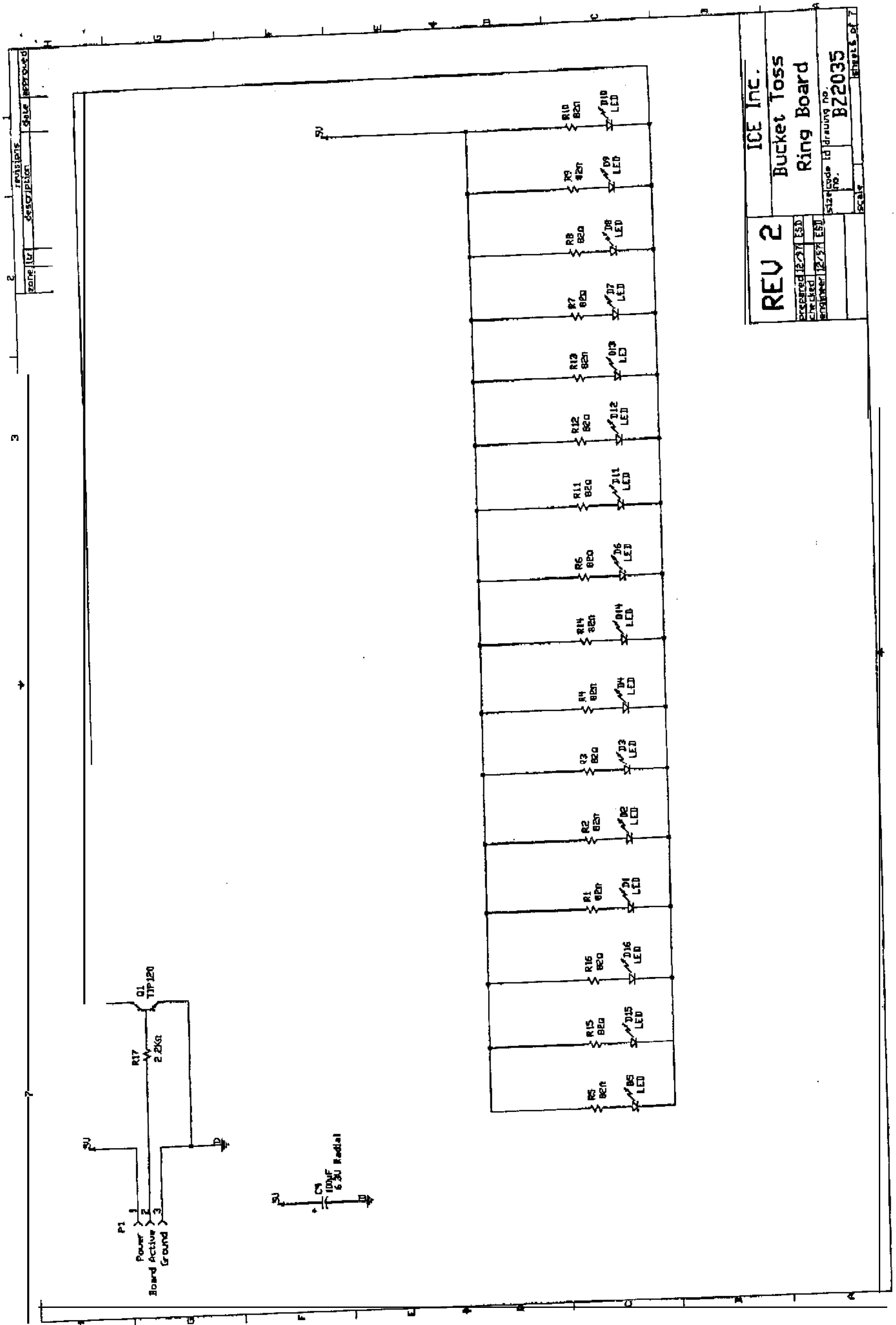


[redacted] INNOVATIVE CONCEPTS IN ENTERTAINMENT INC. BUFFALO, NEW YORK

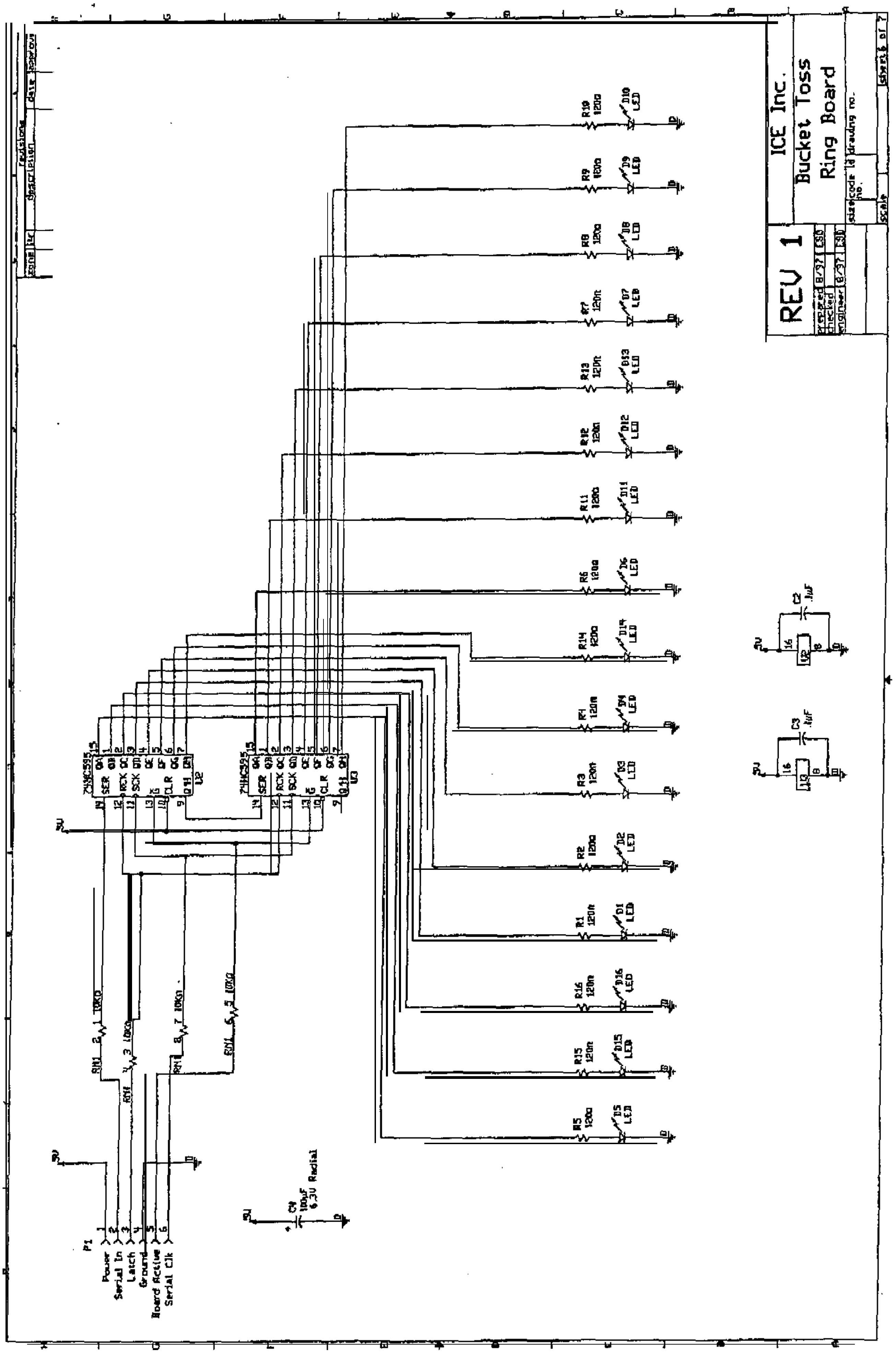

I.C.E. Inc.
Bucket Toss
Display Board
Rev 1


ICE Inc.
Bucket Toss
Main Board
MOD'D Ver
REV 2
1= LEFT
2= RIGHT

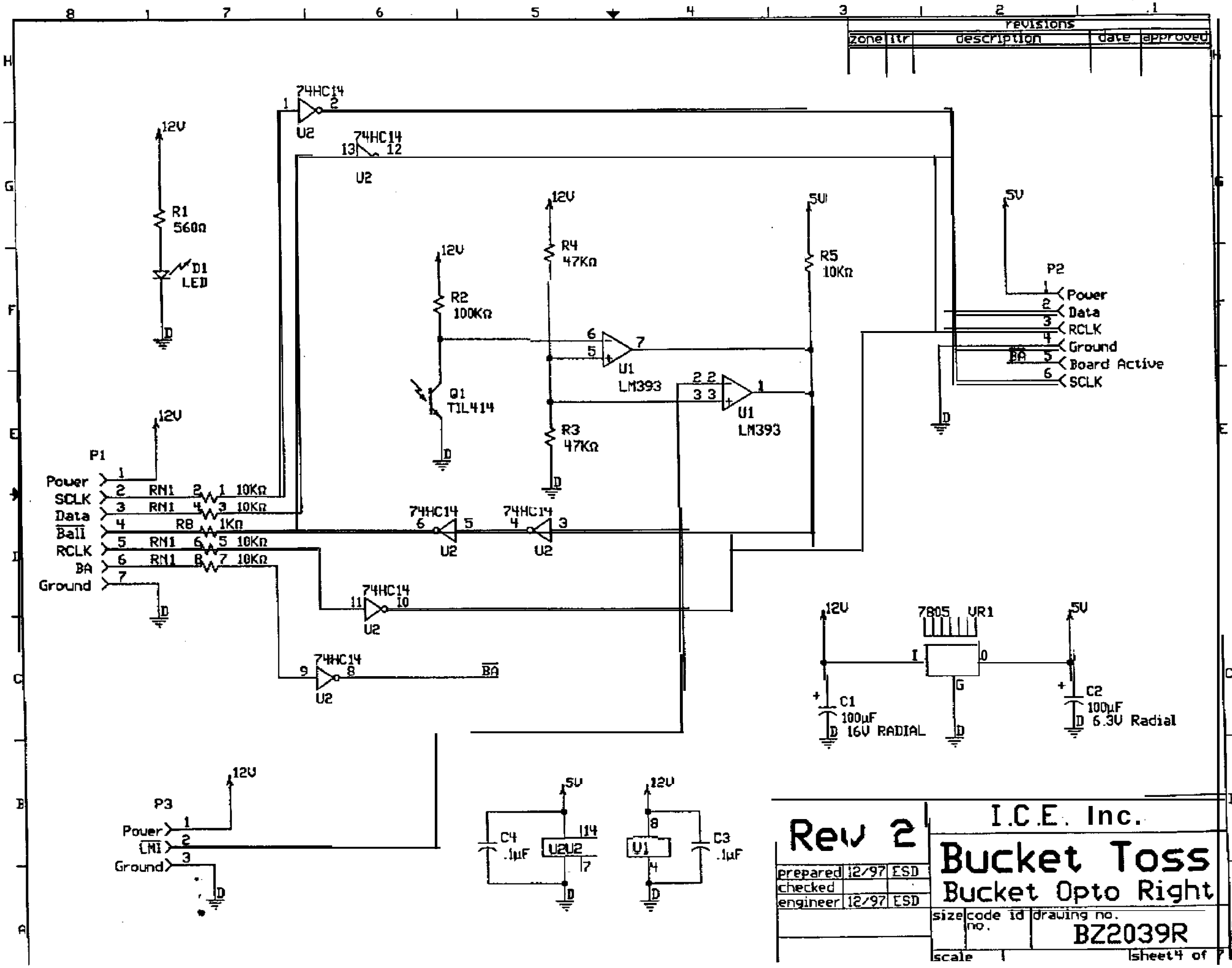

ICE Inc.
Bucket Toss
Main Board
MOD'D Ver
REV 2


ICE Inc.
Bucket Toss
Ring Board
REV 2
BZ2035
prepared
checked
engineer
ESD
revisions
zone
ltr
description
date
approved
size
code id no.
drawing no.
scale
sheet
R10 82Ω
D10 LED
R9 82Ω
D9 LED
R8 82Ω
D8 LED
R7 82Ω
D7 LED
R13 82Ω
D13 LED
R12 82Ω
D12 LED
R11 82Ω
D11 LED
R6 82Ω
D6 LED
R14 82Ω
D14 LED
R4 82Ω
D4 LED
R3 82Ω
D3 LED
R2 82Ω
D2 LED
R1 82Ω
D1 LED
R16 82Ω
D16 LED
R15 82Ω
D15 LED
R5 82Ω
D5 LED
Q1
TIP120
R17
2.2KΩ
5V
C4
100µF
6.3V Radial
P1
Power
Board Active
Ground

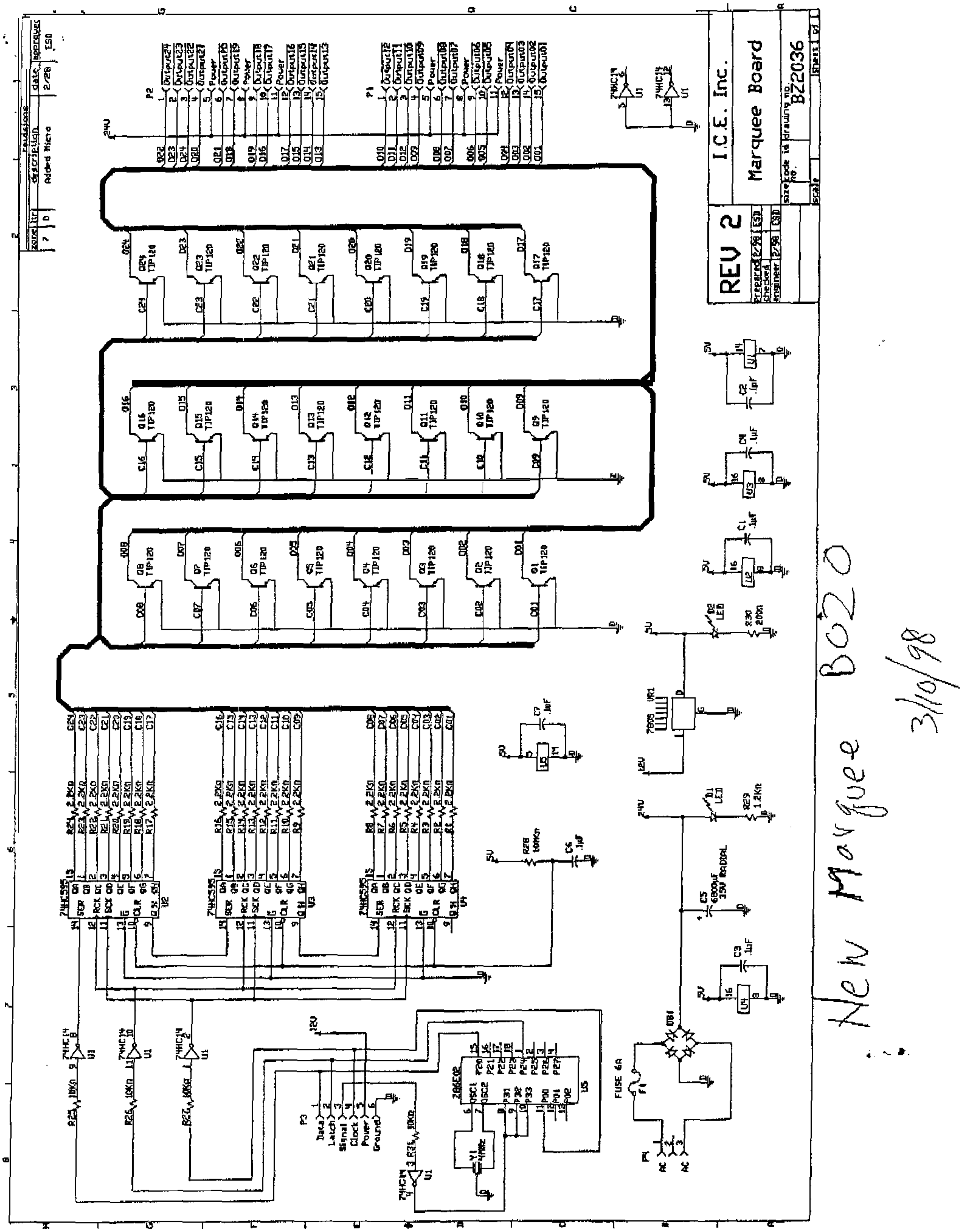
MAY 8 '00 15:17

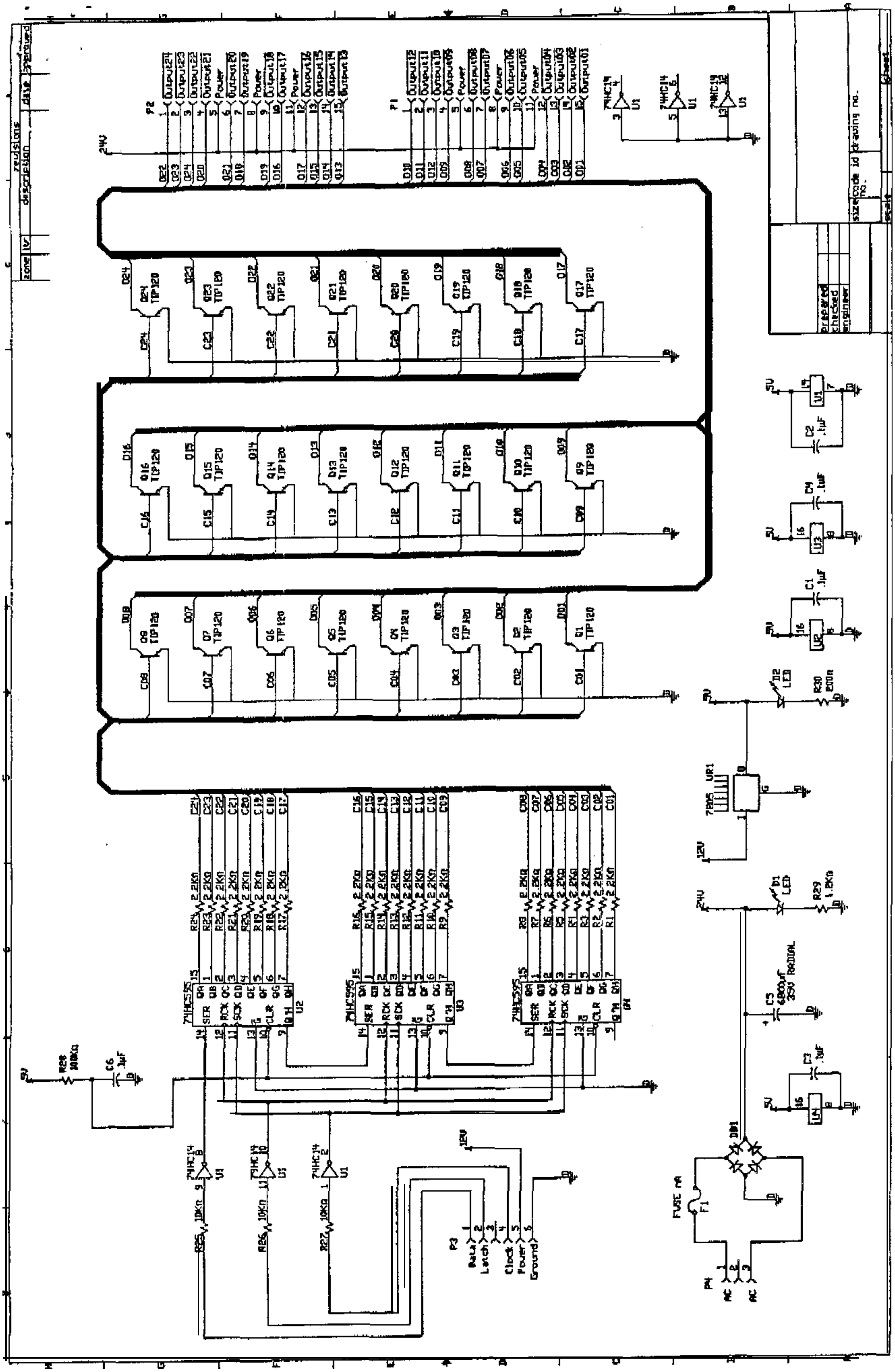

ICE Inc.
Bucket Toss
Ring Board
REV 1
prepared 8/97
checked
engineer 8/97
size
code id
drawing no.
scale
sheet 6 of 7
zone
ltr
description
revisions
date
approve
74HC595
74HC595
U2
U3
P1
Power
Serial In
Latch
Ground
Board Active
Serial Clk
C4
100µF
6.3V Radial
5V
LED

MAY 8 '00 15:17



PAGE.008


I.C.E. Inc.
Marquee Board
REV 2
BZ2036
New Marquee B020
3/10/98



QUICK TROUBLESHOOTING

PROBLEM	PROBABLE CAUSE	SOLUTION
NO GAME POWER	ON-OFF SWITCH ON CAMETURNED OFF A.C. POWER FUSE BLOWN GAME NOT PLUGGED IN OR CORD DAMAGED BAD TRANSFORMER TRANSFORMER HARNESS NOT CONNECTED BAD POWER MODULE	TURN POWER ON REPLACE WITH PROPER FUSE CHECK POWER CORD CHECK FOR PROPER VOLTAGES CHECK HARNESS REPLACE POWER MODULE
GAME WILL NOT TAKE MONEY OR GIVE CREDITS CORRECTLY	BAD COIN SWITCH COIN DISCOUNTING OPTION SET WRONG COINS PER CREDIT SETTINGINCORRECT BAD COIN MECHANISM LOOSE OR DAMAGED HARNESSING BAD MAIN P.C. BOARD BAD 5 VOLT POWER SUPPLY FUSE	CHECK W/METER OR REPLACE CHECK PROGRAMMABLE SETTING CHECK PROGRAMMABLE SETTING ADJUST OR REPLACE CHECK W/METER - REPAIR REPAIR OR REPLACE MAIN BOARD CHECK AND REPLACE FUSE
TICKETS DO NOT DISPENSE OR DISPENSE INCORRECTLY	ZONE VALUES SET UP INCORRECTLY TICKET RESET BUTTON NOT PUSHED TICKET DISPENSER OPTICAL SENSOR DIRTY TICKET DISPENSER HARNESSING BAD TICKET DISPENSER BAD BAD MAIN P.C. BOARD BAD S VOLT POWER SUPPLY FUSE	CHECK PROGRAMMABLE SETTING PRESS RESET BUTTON CLEAN OPTICAL SENSOR CHECK W/METER AND REPAIR REPLACE DISPENSER REPLACE MAIN P.C. BOARD CHECK AND REPLACE FUSE
BUCKET DO NOT LIGHT	BAR L.E.D. BAD DRIVE TRANSISTOR ON P.C. BOARD BAD MAIN P.C. BOARD BAD BUCKET SENSOR DRIVER P.C. BOARD BAD 5 VOLT POWER SUPPLY FUSE	REPLACE L.E.D. REPLACE TRANSISTOR REPLACE MAIN P.C. BOARD REPLACE P.C. BOARD CHECK AND REPLACE FUSE
MARQUEE BULBS DO NOT LIGHT	BAD LIGHT BULB SAD MARQUEE P.C. BOARD BAD INTERCONNECT HARNESSING BAD MAIN P.C. BOARD MARQUEE P.C. BOARD FUSE BAD BAD 5 VOLT POWER SUPPLY FUSE	REPLACE LIGHT BULB REPLACE MARQUEE P.C. BOARD CHECK W/METER AND REPAIR REPAIR OR REPLACE P.C. BOARD CHECK AND REPLACE FUSE CHECK AND REPLACE FUSE
SCORE DISPLAYS DO NOT WORK	BAD 12 VOLT FUSE BAD 5 VOLT POWER SUPPLY FUSE BAD SCORE DISPLAY P.C. BOARD BAD MAIN P.C. BOARD BAD SCORE DISPLAY HARNESSING	CHECK AND REPLACE FUSE CHECK AND REPLACE FUSE REPAIR OR REPLACE P.C. BOARD REPAIR OR REPLACE P.C. BOARD CHECK W/METER AND REPAIR
BALLSUPPLY MOTOR DOES NOT WORK	BAD BALL SUPPLY MOTOR BAD BALL SENSOR (LOCATED UNDER TOP COVER) BAD MAIN P.C. BOARD BALLS JAMMED IN FEED TUBE	REPLACE MOTOR REPLACE SENSOR REPLACE P.C. BOARD CLEAN DEBRIS FROM FEED TUBE
BALLS DO NOT DISPENSETO PROPER SIDE	BAD BALL DIVERTER MOTOR BAD MAIN P.C. BOARD BAD BALL SENSOR DEBRIS CAUGHT IN TOP COVER	REPLACE MOTOR REPAIR OR REPLACE MAIN BOAR0 REPLACE BALL SENSOR REMOVE BLOCKAGE
LOW / NO TICKET INDICATOR DOES NOT WORK	BAD INDICATOR L.E.D. L.E.D. INSTALLED BACKWARDS STATION HARNESSING BAD TICKET MICRO SWITCH BAD MAIN P.C. BOARD BAD	REPLACE L.E.D. REVERSE LE.D. CHECK W/METER AND REPAIR REPLACE MICRO SWITCH REPAIR OR REPLACE P.C. BOARD
BUCKETSENSORS DO NOT WORK	HARNESS DISCONNECTED/DAMAGED BAD SENSOR BOARD MIS AUCNED SENSORS MAIN PCB PROBLEM	CHECK AND CONNECT/REPLACE CHECK AND REPLACE ALIGN SENSORS REPAIR OR REPLACE

WARNING: ALWAYS REMOVE POWER FROM THE SIMULATOR BEFORE ATTEMPTING ANY SERVICE, UNLESS NEEDED FOR SPECIFIC TESTING. FAILURE TO OBSERVE THIS PRECAUTION COULD RESULT IN SERIOUS INJURY TO YOURSELF AND/OR OTHERS.

TROUBLESHOOTING PHILOSOPHY

To find problems with the game, always check the obvious first. 5ee that the game is plugged in, and that all of the fuses on the game are good.

Next, check to see that all of-the connectors are firmly seated, and that no wires have been pulled out

When trying to find out if specific components are bad or not, try swapping them with components from another BOZO™ (if available) to see if the problem moves with the component, or stays where it was. This will help you determine if you have a problem with a specific component, or perhaps a problem with the wiring or the main p.c. board. Use extreme caution when using probes or volt meters if the game is powered up. If checking continuity, it is important to disconnect the harnessing at both ends, as attached they may yie ld erroneous results.

If a p.c. board is suspected as causing your problems, check to see that all of the I.C. chips are firmly seated on the board.

MAIN P.C. BOARD REPLACEMENT

1. Remove all A.C power from the game.
2. Carefully remove all of the connectors from the main p.c. board.
3. Remove the 4 long plastic hexagonal nuts that secure the board to the mounting bracket.
4. Gently pull the p.c. board from the mounting studs.
5. Reassemble in the reverse order using new main p.c. board.

DISPLAY BOARD REPLACEMENT

1. Remove all A.C. power from the game.
2. Unlock and open front doors.
3. Carefully disconnect the multi pin connector fmm the PC board.
4. Remove plastic hexagonal nuts that secure the board in place.
5. Carefully remove PC board from its mounting studs.
6. Reassemble in the reverse order using new display board.

MARQUEE BULB REPLACEMENT

1. Remove all A.C. from the game.
2. Carefully unscrew bulb housing cap.
3. Remove bulb form bulb housing.
4. Reassemble in reverse order using new bulb.

SENSOR P.C. BOARD REPLACEMENT

1. Remove all A.C. power from the game.

5. Carefully lay bucket assembly on Its side, on a hard flat surface.

6. Disconnect the bucket ring board from the bucket sensor board.

7. Remove the 4 *screws* inside the bucket securing it in place and remove bucket.

8. Turn bucket upside down and remove nylock nuts securing the bucket ring board to the bucket. NOTE: There are four small springs on the bucket ring board that must be reinstalled with the new ring board for automatic retraction to work properly.

9. Carefully remove the bucket ring board, from its mounting studs.

10. Reassemble in reverse order using new bucket ring board.

GAME PLAY CHANGE

There are two game modes in the BOZO game, Rapid Toss and Traditional. See game play details in the introduction section. In order to change from one type of game play to the other the following steps must be taken.

Rapid Toss to Traditional

1. Unlock and open the front doors of the game.

2. Power up the game and enter the programming rnode by pressing the button labeled "Prog" on the inside right wall of the front cabinet.

3. Change option 1 from 1 to 0.
NOTE: A setting of "0" is for Traditional and a setting of "1" is for Rapid Toss

4. Exit programming mode by pressing the same black button as step 2 again.

5. Remove all A.C. power from the game.

6. Remove the display boards from both sides of the game. (See display board replacement)

7. The display overlay is held In place by 4 bolts in the 4 corners. Remove the long hexagonal nuts that secure the overlay in place.

8. Remove the Rapid Toss display overlay and replace it with the Traditional display overlay.

9. Reassemble in reverse order.

10. Using the supplied square drive bit remove the 4 square drive screws securing the Rapid Toss instruction plate in place.

11. Carefully remove the Rapid Toss instruction plate and replace it with the Traditional instruction plate.

12. Reinstall the 4 square drive screws attaching the instruction plate firmly *in* place.

13. Remove the Rapid Toss number decals from each bucket and replace them with the supplied number decals for the Traditional game

The game is now converted to the Traditional game. If you want the change the game from a Traditional game to a Rapid Toss game follow the same basic instructions above except you will be converting the game from Traditional game play to Rapid Toss game play.